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WHAT IS CLAIMED IS:

- 1                   1.       A method of inhibiting the proliferation of a peripheral blood  
2 mononuclear cell population, comprising contacting the peripheral blood mononuclear cell  
3 population with an amount of rhesus or human CMV IL-10 sufficient to inhibit the proliferation  
4 of the peripheral blood mononuclear cell population.
- 1                   2.       The method of claim 1, wherein the peripheral blood mononuclear  
2 population is contacted with rhesus CMV IL-10.
- 1                   3.       The method of claim 1, wherein the peripheral blood mononuclear  
2 population is contacted with human CMV IL-10.
- 1                   4.       The method of claim 1, wherein peripheral blood mononuclear, cells are  
2 proliferating when the contacting step is performed.
- 1                   5.       The method of claim 1, wherein the contacting occurs *in vitro*.
- 1                   6.       The method of claim 1, further comprising adding an agent that induces  
2 the peripheral blood mononuclear cells to proliferate.
- 1                   7.       The method of claim 1, wherein the level of IFN- $\gamma$  secreted by the  
2 peripheral blood mononuclear is cells is detectably reduced responsive to the contacting step.
- 1                   8.       The method of claim 1, wherein the level of TNF- $\alpha$  secreted by the  
2 peripheral blood monocular cells is detectably reduced responsive to the contacting step.
- 1                   9.       The method of claim 1, further comprising monitoring the proliferation  
2 level of the peripheral blood mononuclear cells to determine a reduction in the proliferation level  
3 responsive to the contacting step.
- 1                   10.      The method of claim 1, further comprising monitoring secretion of IFN- $\gamma$   
2 or TNF- $\alpha$  to determine a reduction in level of secreted IFN- $\gamma$  or TNF- $\alpha$  responsive to the  
3 contacting step.

1 11. The method of claim 1, wherein the mononuclear proliferating cells  
2 are rhesus or human cells.

1 12. A method of reducing cytokine production of a monocyte cell population,  
2 comprising contacting the monocyte cell population with an amount of rhesus or human CMV  
3 IL-10 sufficient to reduce cytokine production by the monocyte cell population.

1 13. The method of claim 12, wherein the contacting occurs *in vitro*.

1 14. The method of claim 12, wherein the level of IFN- $\gamma$  secreted by the  
2 monocytes is detectably reduced responsive to the contacting step.

1 15. The method of claim 12, wherein the level of TNF- $\alpha$  secreted by the  
2 monocytes is detectably reduced responsive to the contacting step.

1 16. The method of claim 12, wherein the level of GM-CSF secreted by the  
2 monocytes is detectably reduced responsive to the contacting step.

1 17. The method of claim 12, wherein the level of IL-1 $\alpha$  secreted by the  
2 monocytes is detectably reduced responsive to the contacting step.

1 18. The method of claim 12, wherein the level of IL-6 secreted by the  
2 monocytes is detectably reduced responsive to the contacting step.

1 19 The method of claim 12, further comprising monitoring the cytokine  
2 levels of the monocytes to determine a reduction in the proliferation level responsive to the  
3 contacting step.

1 20. The method of claim 12, further comprising monitoring secretion of IFN-  
2  $\gamma$ , TNF- $\alpha$ , GM-CSF, IL-1 $\alpha$  or IL-6 to determine a reduction in level of secreted IFN- $\gamma$ , TNF- $\alpha$ ,  
3 GM-CSF, IL-1 $\alpha$  or IL-6, responsive to the contacting step.

1 21. A method of preventing or treating an immune disorder in a patient,  
2 comprising:

3 administering rhesus CMV IL-10 or human CMV IL-10 to a patient suffering  
4 from or susceptible to the disorder in a dosage sufficient to inhibit proliferation of  
5 lymphocytes in the patient, and thereby prevent or treat the disorder.

1 22. The method of claim 21, wherein the rhesus CMV IL-10 or human CMV  
2 IL-10 is a component of a pharmaceutical composition further comprising a pharmaceutically  
3 acceptable carrier.

1 23. The method of claim 21, wherein the pharmaceutical composition is  
2 sterile, substantially isotonic and prepared under GMP conditions.

1 24. The method of claim 21, wherein the patient is suffering from or  
2 susceptible to an immune disorder selected from the group consisting of graft versus host  
3 disease, an autoimmune disease, an inflammatory response, a pathologic delayed type  
4 hypersensitivity response, endotoxin-induced toxic shock, granulomatis disease, psoriasis,  
5 uveitis, systemic lupus erythematosus, multiple sclerosis and contact-dermatitis.

1 25. The method of claim 21, further comprising monitoring proliferation of  
2 the lymphocytes in the patient to detect a reduction in the level of proliferation responsive to the  
3 administering step.

1 26. The method of claim 21, further comprising monitoring a symptom of the  
2 patient, to detect amelioration or prevention of the symptom responsive to the administering  
3 step.

1 27. The method of claim 21, wherein the patient is suffering from the  
2 disorder.

1 28. The method of claim 21, wherein the patient is susceptible to the disorder.

1 29. The method of claim 28, wherein the patient is an organ transplant patient.

1 30. The method of claim 29, wherein the organ is a kidney.

1 ~~sub 11~~ 31. The method of claim 30, wherein the IFN- $\alpha$  levels are detectably  
2 decreased responsive to the administering of rhesus or human CMV IL-10.

1 32. The method of claim 21, wherein the inflammatory disorder is a chronic  
2 inflammatory response.

1 33. The method of claim 32 wherein the chronic inflammatory disease is  
2 selected from the group consisting of rheumatoid arthritis, inflammatory bowel disease, Crohn's  
3 disease, ulcerative colitis, Graves' disease, Hashimoto's thyroiditis, systemic lupus  
4 erythematosus, multiple sclerosis, scleroderma, and insulin-dependent diabetes mellitus.

1 34. The method of claim 21, wherein the inflammatory disorder is an allergic  
2 response.

1 35. The method of claim 34, wherein the inflammatory disorder is asthma.

1 36. The method of claim 21, wherein the patient is suffering from a type T<sub>H</sub>1  
2 immune response to transplanted graft.

1 37. The method of claim 36, wherein the transplanted graft is an organ  
2 selected from the group consisting of cornea, lung, heart, liver, bone marrow, kidney, pancreas,  
3 blood, and skin.

1 ~~sub 11~~ 38. The method of claim 25 wherein the immune disorder is leukemia.

1 39. A method of ameliorating symptoms of hepatitis in an animal host,  
2 comprising administering to the animal infected with hepatitis virus an effective dosage CMV  
3 IL-10 sufficient to ameliorate at least one of the symptoms of hepatitis.

1 40. The method of claim 39, wherein the administering step ameliorates  
2 damage liver in the patient.

1 41. The method of claim 39, wherein the administering step ameliorates liver  
2 disease or liver fibrosis.

1 42. A method of treating or preventing a respiratory viral infection in a  
2 patient, comprising administering rhesus or human CMV IL-10 to the patient suffering from or  
3 susceptible to a virally infected respiratory system in a dosage sufficient to ameliorate at least  
4 one symptom of the respiratory viral infection.

1 43. A method for reducing an *in vivo* inflammatory response characterized by  
2 substantially elevated levels of at least one cytokine selected from the group consisting of IL-1 $\alpha$ ,  
3 GM-CSF, IFN- $\gamma$  and TNF- $\alpha$ , comprising administering to the patient afflicted with such an  
4 inflammatory response or at risk for developing such an inflammatory response, an effective  
5 dosage of rhesus CMV IL-10 or human CMV IL-10 to substantially lower the levels of said  
6 cytokines.

1 ~~44. A method of preventing or treating the symptoms of an inflammatory~~  
2 ~~response, comprising administering rhesus CMV IL-10 or human CMV IL-10 to the patient~~  
3 ~~suffering from or susceptible to an inflammatory response in a dosage sufficient to ameliorate at~~  
4 ~~least some of the symptoms of the inflammatory condition.~~

1 45. The method of claim 44, further comprising monitoring proliferation of  
2 the lymphocytes in the patient to detect a reduction in the level of proliferation responsive to the  
3 administering step.

1 46. The method of claim 44, further comprising monitoring a symptom of the  
2 patient, to detect amelioration or prevention of the symptom responsive to the administering  
3 step.

1 47. The method of claim 44, wherein the patient is suffering from the  
2 disorder.

1 48. The method of claim 44 wherein the inflammatory response is a chronic  
2 inflammatory response.

1 49. The method of claim 48 wherein the chronic inflammatory disease is  
2 selected from the group consisting of rheumatoid arthritis, Crohn's disease, ulcerative colitis,  
3 Graves' disease, Hashimoto's thyroiditis and insulin-dependent diabetes mellitus.

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